Table S3. Results of the MALDI-TOF MS analysis.

Strains matching with *Lactiplantibacillus plantarum* (Score values 2.1 to 2.5)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces
Ávila
mBAL4_2, mBAL4_3, mBAL4_5, mBAL4_9, mBAL4_10, mBAL4_17, mBAL4_20 mBAL5_6, mBAL5_15, mBAL5_18, mBAL5_28 mBAL11_2, mBAL11_5, mBAL11_6, mBAL11_9, mBAL11_13, mBAL11_14, mBAL11_18, mBAL11_21 mBAL12_4, mBAL12_17, mBAL12_20
Salamanca
mBAL1_4, mBAL1_5, mBAL1_11, mBAL1_12, mBAL1_13, mBAL1_14, mBAL1_15, mBAL1_16, mBAL1_17, mBAL1_18, mBAL1_19, mBAL1_20, mBAL1_21, mBAL1_22, mBAL1_23, mBAL1_24, mBAL1_25 mBAL10_4, mBAL10_15 mBAL19_1, mBAL19_2, mBAL19_3, mBAL19_4, mBAL19_5, mBAL19_6, mBAL19_7, mBAL19_8, mBAL19_9, mBAL19_10, mBAL19_11, mBAL19_12, mBAL19_13, mBAL19_14, mBAL19_15, mBAL19_16, mBAL19_17, mBAL19_18, mBAL19_19, mBAL19_20, mBAL19_21, mBAL19_22, mBAL19_23
Zamora
mBAL13_17 mBAL14_2, mBAL14_6, mBAL14_9, mBAL14_12, mBAL14_13, mBAL14_14, mBAL14_19, mBAL14_21, mBAL14_23, mBAL14_24 mBAL15_1, mBAL15_2, mBAL15_3, mBAL15_4, mBAL15_7, mBAL15_8, mBAL15_9, mBAL15_10, mBAL15_12, mBAL15_13, mBAL15_14, mBAL15_16, mBAL15_18, mBAL15_19 mBAL17_1, mBAL17_11, mBAL17_12, mBAL17_13, mBAL17_14, mBAL17_15, mBAL17_16, mBAL17_17, mBAL17_20, mBAL17_21
Strains isolated from experimental sourdoughs ellaborated with different cereals
Firm sourdoughs
Wheat
BARi_1, BARi_2, BARi_3, BARi_4, BARi_7, BARi_8, BARi_9, BARi_10, BARi_11, BARi_14, BARi_15, BARi_17, BARi_18, BARi_19, BARi_20 BMOL_1, BMOL_2, BMOL_4, BMOL_5, BMOL_8, BMOL_9, BMOL_11, BMOL_13, BMOL_15, BMOL_16, BMOL_17, BMOL_18, BMOL_19
Rye
BCEN_1, BCEN2, BCEN_3, BCEN_5, BCEN_6, BCEN_7, BCEN_10, BCEN_13, BCEN_14, BCEN_15, BCEN_16, BCEN_17, BCEN_18, BCEN_19
Spelt
BESP_3, BESP_5, BESP_6, BESP_9, BESP_11, BESP_12, BESP_18, BESP_19, BESP_20
Tritordeum
BTRi_1, BTRi_5, BTRi_12, BTRi_13, BTRi_14, BTRi_17, BTRi_18, BTRi_19, BTRi_20
Liquid sourdoughs
Wheat
BPARi_1, BPARi_3, BPARi_4, BPARi_5, BPARi_6, BPARi_9, BPARi_10, BPARi_11, BPARi_12, BPARi_14, BPARi_15, BPARi_16, BPARi_19, BPARi_20 BPMOL_1, BPMOL_2, BPMOL_4, BPMOL_8, BPMOL_9, BPMOL_11, BPMOL_12, BPMOL_14, BPMOL_15, BPMOL_16, BPMOL_17, BPMOL_18, BPMOL_19
Rye
BPCEN_2, BPCEN_3, BPCEN_5, BPCEN_8, BPCEN_9, BPCEN_10, BPCEN_11, BPCEN_12, BPCEN_13, BPCEN_14, BPCEN_15, BPCEN_16, BPCEN_19
Spelt
BPESP_3, BPESP_4, BPESP_5, BPESP_6, BPESP_9, BPESP_12, BPESP_15, BPESP_16, BPESP_17, BPESP_18, BPESP_19, BPESP_20
Tritordeum
BPTRi_1, BPTRi_2, BPTRi_3, BPTRi_4, BPTRi_8, BPTRi_9, BPTRi_11, BPTRi_13, BPTRi_14, BPTRi_15, BPTRi_16, BPTRi_20
Strains matching with *Lactiplantibacillus paraplantarum* (Score values 2.0 to 2.1)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces

Ávila
mBAL4_4 (2.156), mBAL4_6, mBAL4_11
Strains isolated from experimental sourdoughs ellaborated with different cereals
Firm sourdoughs
Spelt
BESP_1, BESP_2, BESP_7, BESP_16
Liquid sourdoughs
Spelt
BPESP_1, BPESP_2, BPESP_10, BPESP_13
Tritordeum
BTRi_2
Strains matching with *Levilactobacillus brevis* (Score values 2.3-2.5)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces
Ávila
mBAL12_2, mBAL12_11
Salamanca
mBAL1_2, mBAL1_3, mBAL1_4, mBAL1_6, mBAL1_9
Zamora
mBAL13_1, mBAL13_2, mBAL13_3, mBAL13_6, mBAL13_8, mBAL13_9, mBAL13_12, mBAL13_13, mBAL13_14, mBAL13_16, mBAL13_18, mBAL13_19, mBAL13_20, mBAL13_21, mBAL13_23, mBAL13_24 mBAL17_9, mBAL17_10
Strains isolated from experimental sourdoughs ellaborated with different cereals
Firm sourdoughs
Wheat
BMOL_3, BMOL_14, BMOL_20
Spelt
BESP_8, BESP_10, BESP_13, BESP_14, BESP_17
Tritordeum
BTRi_3, BTRi_4, BTRi_6, BTRi_7, BTRi_8, BTRi_9, BTRi_10, BTRi_11, BTRi_15, BTRi_16
Liquid sourdoughs
Wheat
BPARi_7, BPARi_8 BPMOL_5, BPMOL_7, BPMOL_10, BPMOL_20
Rye
BPCEN_1, BPCEN_20
Spelt
BPESP_8, BPESP_11, BPESP_14
Tritordeum
BPTRi_5, BPTRi_6, BPTRi_7, BPTRi_18
Strains matching with *Lacticaseibacillus paracasei* (Score values 2.0-2.5)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces
Ávila
mBAL5_23

mBAL11_1, mBAL11_3, mBAL11_7, mBAL11_11, mBAL11_20 mBAL12_3, mBAL12_6, mBAL12_8, mBAL12_10, mBAL12_13, mBAL12_18, mBAL12_19, mBAL12_21, mBAL12_22
Zamora
mBAL13_4, mBAL13_5, mBAL13_7, mBAL13_10, mBAL13_11, mBAL13_15, mBAL13_22 mBAL17_18 mBAL18_1, mBAL18_2, mBAL18_3, mBAL18_4, mBAL18_5, mBAL18_6, mBAL18_7, mBAL18_8, mBAL18_9, mBAL18_10, mBAL18_11, mBAL18_12, mBAL18_13, mBAL18_14, mBAL18_15, mBAL18_16, mBAL18_17, mBAL18_18, mBAL18_19, mBAL18_20
Strains matching with *Lactococcus lactis* (Score values 2.0-2.3)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces
Salamanca
mBAL9_1, mBAL9_3, mBAL9_4, mBAL9_7, mBAL9_8, mBAL9_9, mBAL9_10, mBAL9_11, mBAL9_12, mBAL9_13, mBAL9_14, mBAL9_15, mBAL9_16, mBAL9_17, mBAL9_18, mBAL9_19, mBAL9_20, mBAL9_21, mBAL9_22, mBAL9_23, mBAL9_24, mBAL9_25 mBAL10_10, mBAL10_23
Strains matching with *Pediococcus pentosaceus* (Score values 2.1-2.5)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces
Ávila
mBAL4_8 mBAL12_9, mBAL12_12, mBAL12_15, mBAL12_16, mBAL12_24
Salamanca
mBAL9_5 mBAL10_3, mBAL10_7, mBAL10_12, mBAL10_19, mBAL10_21,
Strains matching with *Weisella paramesenteroides*(Score values 2.1-2.3)
Strains isolated from firm wheat sourdoughs in bakeries of different North Spanish provinces
Salamanca
mBAL10_8, mBAL10_9, mBAL10_13, mBAL10_14, mBAL10_16, mBAL10_18, mBAL10_20